

calculates a dilution ratio(Δd) by the following Equation 1 at step S160,

$$\Delta d = \frac{P_fn}{S_fn} \times 100[\%] \text{-----} [1]$$

wherein P_fn is the number of files decided to be "pass",
5 and S_fn is the total number of searched files. The dilution ratio calculated at step S160 may be used as reporting data of a record corporation or a movie corporation, or a reference data required to an operation of the supervisor.

Then, the main server 10 determines the digital file with
10 a same writer, title of the literary work as the digital file decided to be "fail" among the digital files(e.g. the advertising, deteriorated or encrypted digital files having the identifier), which correspond to the literary work information requiring the protection inputted by the
15 supervisor and are stored in the storage unit 12, as the digital file to be shared as opposed to the file decided to be "fail". Then, the main server 10 stores the digital file, determined to be shared, in the database 11 at step S170.

Generally, an index information is included in the data
20 table of the digital file searched through the P2P Web and stored in the storage unit 12. The main server 10 detects a writer or the title of the literary work by the index information in the data table of the searched or stored digital file. The searched digital file not having

information of the writer and the title of the literary work is stored separately and processed with a manual task by the supervisor.

The main server 10 decides a division of the system resources according to each P2P Web. In other words, the main server 10 decides a corresponding sub-server 20 for sharing the digital file according to each P2P Web, generates accessing information according to each P2P (for example, IP address of the P2P Web agent server and a port number) and stores the accessing information in the storage unit 12 or the database 11 at step S180.

Thereafter, the main server 10 determines whether to proceed from the current P2P Web to a next P2P Web at step S190. In this case, the determination to proceed is made by the selection of the supervisor or the preset sequence, thus allowing the main server 10 to automatically access the next P2P Web. However, in case that the main server 10 wishes to access the next P2P Web according to the preset sequence, if the current Web is the last with no following P2P Web, the main server 10 determines to not to proceed to the next P2P Web.

On the other hand, if it is determined that the main server 10 proceeds from the current P2P Web to the next P2P Web, the main server 10 returns to step S70 and accesses the next P2P Web.

Further, when deciding to proceed to the next P2P Web, the main server 10 asks the supervisor to change a digital file requiring the protection of its copyright through the Web page for user interface of the sharing search program at step 5 S200. If the supervisor decides to change the digital file requiring the protection of its copyright, a processing step of the main server 10 returns to step S10. On the other hand, if the supervisor decides to not change the file, the main server 10 stops its control operation.

10 Hereinafter, the process of accessing the P2P Web by the sub-servers 20-1 through 20-n under the control of the main server 10, and sharing the digital literary work decided to be shared by the main server 10 are described in detail.

The supervisor primarily activates the sub-servers 20-1 15 through 20-n by supplying power. When the sub-servers 20-1 through 20-n run their sharing program, the sharing program is loaded to each main memory of the sub-servers 20-1 through 20-n and executed by each processor thereof.

The sub-servers 20-1 through 20-n are commonly connected 20 to a communication port of the main server 10 via the premise communication network 40 by the executed sharing program for the sub-server at step S210, and stand by at step S220.

The sub-servers 20-1 through 20-n in standby status determine whether a sharing execution command has been 25 received from the main server 10 via the premise communication